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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/277,312	03/26/1999	MARK R. BUCKINGHAM	53836USA1A	3332

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EXAMINER

SZEKELY, PETER A

ART UNIT	PAPER NUMBER
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1714

16

DATE MAILED: 04/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

T-D-16

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/277,312	Buckingham et al.	
	Examiner	Group Art Unit	
	Szekely	1714	

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

**Status**

- ☒ Responsive to communication(s) filed on 03/08/02
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

**Disposition of Claims**

- ☒ Claim(s) 1-15 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-15 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

**Application Papers**

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119 (a)-(d)**

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
  - ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
  - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).
- \*Certified copies not received: \_\_\_\_\_.

**Attachment(s)**

- |  |   |
|--|---|
| <input type="checkbox"/> Information Disclosure Statement(s), PTO-1449, Paper No(s). _____ | <input type="checkbox"/> Interview Summary, PTO-413                     |
| <input type="checkbox"/> Notice of Reference(s) Cited, PTO-892                             | <input type="checkbox"/> Notice of Informal Patent Application, PTO-152 |
| <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review, PTO-948           | <input type="checkbox"/> Other _____                                    |

**Office Action Summary**

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## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-12 are rejected under 35 U.S.C. 102(b or e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over von Bonin et al. 4,694,030, von Bonin 5,094,780, von Bonin 5,382,387, Okisaki et al. 5,810,914, Horacek 6,031,040, or Goto et al. 6,124,394 with Welna 5,578,671 used as a teaching reference.
3. Von Bonin et al. disclose polysiloxane and expandable graphite in claim 1, phosphate compounds in claims 3-6, graphite concentrations in column 2, lines 60-63 and phosphate concentrations in column 3, lines 15-29. Von Bonin ('780) teaches expandable graphite in column 2, lines 26-29, binders and phosphorus containing compounds in the paragraph overlapping columns 1 and 2. A blend of sugar, alkali metal silicate hydrate and borax is shown in column 2, lines 18-23. Von Bonin ('387) recites expanded graphite and phosphates in claim 1, and binders in claims 3 and 6. For concentrations see claims 1 and 3. Okisaki et al. display 100 parts of engineering plastic, 1-30 parts of heat expandable graphite, 1-30 parts of red phosphorus and 1-30 parts of phosphorus compound in the Abstract. Horacek reveals polymers, expandable graphite and flame retardants in claim 1, concentrations in claim 2 and phosphate compounds in claim 3, EVA in Example 1. Goto et al. divulge graphite in claims 1 and 2, phosphorus

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compounds in claims 3-5 and blending them with resins in claims 6-8. Concentrations are shown in the same claims. Ethylene-vinyl acetate can be found in column 8, lines 45-46. None of the cited references define the softness value of the composition, but Welna shows that a softness value of 4 mm or higher is a putty. Since all of the cited references present molding compounds, not putties, they have to have a softness value lower than 4 mm. Thus the softness value is inherent in the composition. Applicants' claims are not novel. In the alternative, even if the softness value is between 3.75 mm and 4 mm, the compositions are assuredly not putties, making significantly lower softness values obvious to one having ordinary skill in the art, at the time the invention was made. Furthermore, Welna also shows the equivalence of expandable graphite and the blend of an alkali metal silicate hydrate in column 4, lines 19-46, making the substitution of one with the other obvious.

***Claim Rejections - 35 USC § 103***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Welna 5,578,671 in view of Michaeli, further in view of von Bonin et al. 4,694,030, von Bonin 5,094,780, von Bonin 5,382,387, Okisaki et al. 5,810,914, Horacek 6,031,040, or Goto et al. 6,124,394.

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6. The rejection elucidated in Paper #13 is maintained in its entirety. The shear rate necessary for the dispersion of a harder compound cannot be less than the shear rate used for the blending of a softer compound. A high shear rate is obvious. Furthermore, Okisaki et al. show extrusion kneading in Examples 14 and 15, Horacek mentions extrusion mixing in column 2, lines 33-35 and Goto et al. refer to a Henschel mixer in column 7, line 39. These are certainly high shear mixers and mixing methods.

***Response to Arguments***

7. Applicant's arguments filed 03/08/02 have been fully considered but they are not persuasive. The continuously repeated statement, saying that the reference "fails to disclose, teach, or suggest a fire sealing composition including water-insoluble intumescent mineral granules, a thermoplastic or thermosetting, halogen free binder, and a phosphorus containing flame retardant, wherein the has a softness value from about 0.01 to about 3.75, as defined in independent claim 1" is not a convincing argument. All the cited references contain the intumescent agent, the binder and the phosphorus containing compound, in the ratios claimed by applicants. The only thing they do not disclose is the hardness of the compounds, using the method of measurement used by applicants. However, since none of the compounds disclosed by the references are characterized as putties, foams or soft compounds and none of them contain plasticizers or other softeners, their softness value being lower than 3.75 mm is very probable. Applicants shown no proof that the cited references claim softer compounds than their

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specification requires and the use of these compounds proves their hardness. As far as the process claims are concerned, the shear rate of the high shear mixing is not defined, the specific equipment is not specified, thus one of ordinary skill in the art would surely try a high shear mixer if a low shear one did not work. It is a case of simple optimization.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

9. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Szekely whose telephone number is (703) 308-2460. The examiner can normally be reached on Tuesday through Friday from 7:00 a.m. to 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (703) 306-2777. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7718 or (703) 305-5408.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

A handwritten signature in black ink, appearing to be 'P. Szekely' with a stylized flourish at the end.

Peter Szekely

Primary Examiner

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